

# Notes - Percents at the Store

## ■ Sales Tax

Ex: Pay 6% tax on a \$150 item

1 step

$$100\% + 6\% = 106\%$$

cost of item ↑ tax ↑ Total ↑

$$1.06(150) = \boxed{\$159}$$

## 2 steps

$$6\% \text{ of } 150$$

$$.06(150) = \$9 \leftarrow \text{Tax}$$

$$150 + 9 = \boxed{\$159} \leftarrow \text{Total}$$

## ■ Percent Sales

Ex: Save 30% on a \$60 pair of shoes

$$100\% - 30\% = 70\%$$

% of original that I pay ↑

$$.70(60) = \boxed{\$42}$$

$$.3(60) = \$18 \leftarrow \text{savings}$$

$$60 - 18 = \boxed{\$42}$$

## Working Backwards

Ex: I paid \$238.94 after the 6% sales tax. What was my order total?

$$1.06x = 238.94$$

↑ original price

$$\frac{238.94}{1.06} = \underline{\underline{\$225.42}}$$

Ex: After I used my 20% off coupon, I paid \$40 (before tax). What was the original price of the item?

100% - 20% = Paid 80% of original price

$$.80x = \frac{40}{.8}$$

$$x = \underline{\underline{\$50}}$$

Ex: An item costs \$16.10 after a 6% sales tax and a 20% off coupon. What was the original price?

→ Take off sales tax first

$$16.10 / 1.06 = 15.19 \leftarrow \text{before tax after sale}$$

→ Take off the sale

$$.80y = 15.19$$

$$15.19 / .8 = \boxed{\$18.99}$$